Therefore, Davis lacks several elements of the applicant's invention: 1) the coupling in Davis is not flexible; 2) the coupling cannot connect the grasping elements in many different useful configurations by being moved along the shafts, and; 3) the elements are prevented from rotating along the axes of their shafts when they are in a useful configuration.

Applicant respectfully traverses and submits that this rejection is in error. Since the elements of Davis and the applicant's invention are different, it is respectfully requested that claim 1 be allowed. Furthermore, since the dependent claims of limitation, claims 2, 3, 6-9 and 15, claim elements of a different invention than in Davis, it is respectfully requested that these claims be allowed.

Response to rejection of claims 1, 8, 9, 11, 12 and 15 under 35 USC § 102 (b) as being anticipated by Lee '328.

The Examiner has cited Lee '328 as a primary reference in anticipation of the applicant's invention. As stated earlier, "A claim is anticipated only if each and every element as set forward in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2USPQ2d 111051, 1053 (Fed. Cir. 1987). Further, as in the argument above regarding Davis, claim 1 is the only independent claim, and all others are dependent claims. Therefore, Applicant can look to claim 1 for the elements of the invention and to the other claims for clarification and limitation. See the statement of claim 1 above for details of the claim.

Lee employs an elastic spring to provide a bias force between the ends of the shafts (chop sticks) that tends to pull the outer ends of the chop sticks together in opposition to a force applied by the user's fingers that forces the outer ends apart. To function in this manner, the user must use his fingers to form a fulcrum between the upper and lower end of the chop sticks and must also apply force to the lower ends of the chop sticks to draw them together by overcoming the bias force of the spring at the upper ends. The applicant's invention employs a flexible coupling, but not to provide a bias force. Far different from a spring, applicant's coupling can be a metal chain, which is flexible but not extensible or elastic, so cannot provide a bias force over a range of extensions. Applicant's coupling, being essentially inelastic, would not permit the outer ends of the chopsticks to move apart in response to the force applied by the fingers at the inner ends, so the inner ends of the chopsticks could not be drawn together by pivoting the chopsticks around the fulcrum formed by the fingers. Therefore, the chopsticks of Lee would not function if the spring was replaced by a chain or if the spring was moved to the middle or lower ends of the chop stick shafts. The Applicant's coupling functions to hold the shafts of the grasping elements closely together while allowing them to pivot freely with respect to each other and rotate along their axes. If the applicant's coupling was replaced with the spring of the Davis device, the shafts would spread apart, control of the two grasping devices would be lost and the device would not function as intended. The applicant's invention does not employ a fulcrum as in Lee, and would not perform a useful function if a fulcrum was placed between the "flexible coupling" and the

operator's hands. From this it is clear that the applicant's invention does not employ the elements of Lee and Lee does not employ the elements of the Applicant's invention, so the two inventions are different.

The Examiner has argued that both Davis and Lee anticipate the Applicant's invention, that is, they each define the Applicant's invention. If this is so, Davis must also anticipate Lee, and Lee would be therefore be invalid. However, the validity of an issued patent is presumed, so the patents must be different. Since Applicant can therefore presume that Davis and Lee are different inventions, the Examiner is respectfully requested to state which of these patents anticipates the Applicant's invention.

Alternatively, if Davis is taken to be the primary reference, multiple references can be cited to (1) prove the primary reference has an "enabling disclosure"; (2) explain the meaning of a term used in the primary reference; or (3) show that a characteristic not disclosed in the reference is inherent. MPEP 2131.01. If Lee is cited as a secondary reference for one or more of these reasons, it should be stated in the rejection so that a proper response can be made.

Since Davis is a clearly described invention, one might conclude that Davis has an enabling disclosure. However, if the meaning of "malleable iron" used in Davis's coupling is not clear, as one might assume from the Examiner's assertion that the malleable iron coupling of Davis is flexible, or that a characteristic not disclosed in Davis is inherent, then a

relevant citation would show that a material generally known to be flexible, such as rubber, could be used as a coupling to make a device with the same function, namely a post hole digger. Alternatively, a citation showing that a malleable iron coupling is inherently flexible would be relevant. However, a citation showing that a flexible coupling not made of malleable iron can be used to make a completely different device that operates on a completely different principle is irrelevant. Since "malleable iron" is a term of art for a rigid, hard form of iron, and since Davis selected it as a hard, rigid coupling material to eliminate flexibility, the characteristic of flexibility is clearly not inferred.

Applicant respectfully traverses and submits that this rejection is in error. Since the elements of Lee and the Applicant's invention are different, it is respectfully requested that claim 1 be allowed. Furthermore, since the dependent claims of limitation, claims 8, 9, 11, 12 and 15, claim elements of a different invention than in Lee, it is respectfully requested that these claims be allowed.

Response to rejection of claims 1, 8, 9, and 11-15 under 35 USC § 102 (b) as being anticipated by Larimie '663.

The Examiner has cited Laramie '663 as a primary reference in anticipation of the Applicant's invention. As stated earlier, "A claim is anticipated only if each and every element as set forward in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2USPQ2d 111051, 1053 (Fed. Cir.

1987). Further, as in the argument above regarding Davis, claim 1 is the only independent claim, and all others are dependent claims. Therefore, Applicant can look to claim 1 for the elements of the invention and to the other claims for clarification and limitation. See the statement of claim 1 above for details of the claim.

Laramie '825 claims a chopstick holder comprising two

> "elongated holding portions having a pair of respective through holes .... for holding a pair of chopsticks .... in a generally parallel relationship and with the dimensions of said through holes being such that the chopsticks will be held by frictional engagement when they are inserted into said through holes." (claim 11, column 5, line 1 and claim 9, column 6, line2) and "connecting means for holding such holding portions a fixed distance apart, and in a generally parallel relationship" (claim 1, column 5, lines 9-11 and claim 9, column 6, lines 10-12).

The elongated holding portions are connected by a web of material (connecting means). The web can be "slightly resilient" or non-resilient, as described in column 3, lines 58-63:

> "Holders 10, 34 and 52 can be made of any slightly resilient material, such as nylon, polycarbonate, acrylic plastic, etc. However, even if the holder is made of a non-resilient material, such as wood or metal, the chopsticks themselves will have sufficient flexibility to be used, ..."

The device holds a pair of chopsticks parallel to each other, and the operator's fingers are used to move the end of the chopsticks together or apart as permitted by the slight resilience of the holding portion or the resilience of the chopsticks themselves. Webster's New World Dictionary defines resilience as "the ability to bounce or spring back into shape, position, etc." The elongate design of the holding portion and connection means (collectively, "Laramie coupling") and their stiff nature resulting from the use of slightly resilient or non-resilient material in their fabrication, restrict pivoting of the chopsticks on an axis perpendicular to their shafts through the chopstick holder and cause them to "snap back" into their parallel position. Rotation of the chopsticks along their axes is restricted by the friction fit of the chopsticks in the through holes of the chopstick holder. Claims 3-6 and 12-14 claim splines in the through holes to further prevent rotation of the chopsticks in the through holes, showing he inventor's intention to limit or prevent rotation of the chopsticks in the holding device. Therefore, the Laramie device controls the relative positions of the chopsticks and converts two chopsticks into a pair of tweezers for picking up food. The holding device and connecting means are designed to keep the lower ends of the chopsticks in close opposition by holding the shafts as parallel as possible. If the coupling permits excessive pivoting, it will be difficult for the operator to bring the lower ends together, so pivoting is minimized as mentioned above. The Applicant's coupling, which allows free pivoting and rotation of the shafts, would not be suitable for the Laramie device, for example the flexible chain coupling of the Applicant's invention would render Laramie's device

useless, because it would not hold the chopsticks in parallel positions. Also the relatively inflexible coupling of Laramie would not permit the free pivoting and rotation required in the Applicant's device, so the Laramie coupling could not be used in the Applicant's device. The two inventions are different and operate on different principles.

The Examiner described the connecting means as a:

> "flexible coupling means (being formed form[sic] 'any [sic.] resilient material...plastic,etc'; column 3 lines 59[sic]-62 having a pair of loops (as seen in figure 3) which is slideable along the shafts, can allow the shafts to rotate about their axes and is clampable in desired positions".

The exact quotation from Laramie is described in column 3, lines 58-63:

> Holders 10, 34 and 52 can be made of any slightly resilient material, such as nylon, polycarbonate, acrylic plastic, etc. However, even if the holder is made of a non-resilient material, such as wood or metal, the chopsticks themselves will have sufficient flexibility to be used, ..."

In response it must be noted that Laramie does not describe the coupling as flexible and states that the holders can be made of "any slightly resilient material". In fact, Larimer describes the chopsticks as flexible and states that the apparatus is functional even if the Laramie coupling is non-resilient. That is because a highly flexible, or highly resilient, material

would not provide the control required to keep the chopsticks generally parallel with each other.

It is respectfully suggested that figure 3 does not depict a "loop", which Webster's New World Dictionary defines as "the more or less circular figure formed by a line, thread, wire, etc. that curves back to cross itself". If a loop were to be used, the elongate portion and the web would have more or less equal lengths along the chopstick shafts, and such length would approximate the thickness of the web. Such a coupling would have little control over pivoting of the chopsticks and therefore little control of the parallel positions of the chopsticks. Figure 3 depicts a molded object which has two elongated cylindrical "holding portions" connected by a web which is about one half the length of the holding portions, which is designed to provide control that is not possible with a simple loop.

In response to the statement that the Laramie coupling is "slideable along the shafts, can allow the shafts to rotate about their axes and is clampable in desired positions", if the Laramie coupling is slid along the shafts, the device will not serve its intended purpose, which requires the coupling to be located at the outer ends of the shafts. Furthermore, a clamp is defined by Webster's New World Dictionary as, "an appliance with two parts that can be brought together, usually by screws, to grip something.", and Figure 3 does not show a clamp of that nature. The steps taken by Laramie to restrict rotation of the shafts are discussed above.

In summary, the Laramie coupling and the Applicant's coupling differ in important ways: 1) Applicant's coupling is highly flexible to permit easy movement of the grasping elements, whereas the Laramie coupling is at most slightly resilient to limit the movement between the grasping elements; 2) the applicants apparatus depends for its function on easy movement of the grasping elements relative to each other, whereas the Laramie invention depends on resistance to movement provided by elongated members of stiff material; 3) the Applicant's coupling can be moved along the shafts of the grasping elements to other functional configurations, whereas the Laramie coupling is useful only at the ends of the grasping element shafts; and 4) the Applicant's coupling intentionally permits rotation of the grasping elements around their axes, whereas the Laramie coupling intentionally restricts such rotation by frictional engagement or special splines.

Applicant respectfully traverses and submits that this rejection is in error. Since the elements of Laramie and the Applicant's invention are different, it is respectfully requested that claim 1 be allowed. Furthermore, since the dependent claims of limitation, claims 8, 9 and 11-15, claim elements of a different invention than in Laramie, it is respectfully requested that these claims be allowed.

The examiner has cited three separate patents independently as anticipating the Applicant's invention. As argued above regarding Lee, no reason was given for using multiple references, so it is difficult to provide a reasoned response. If one assumes that the Examiner cited Larimer to show that a

characteristic not disclosed in Davis, presumably flexibility, is inherent, then since Davis was very careful to use a hard, rigid coupling material to eliminate flexibility, and Laramie requires a coupling material that is non-resilient, or at most a slightly resilient, the characteristic of flexibility is certainly not inferred.

Response to rejection of claims 4, 5 and 10 under 35 USC § 103(a)

Claims 4, 5 and 10 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Davis '359 in view of Cox '484. The basis for all obviousness rejections is set forth under 35 U.S.C. § 103(a) that provides:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

As discussed above in the answer to Examiner's rejection based upon anticipation by Davis, Davis employs a rigid coupling to join two opposing shovels in a configuration that permits its use as a post hole digger. The coupling allows one of the shovels to pivot around an axis perpendicular to their shafts,

but prevents rotation of the shafts. The coupling can be moved from its operating position to use the shovels individually, but will not function as a post hole digger if the coupling is moved away from the operating position.

Cox '484 joins two garden rakes by passing a metal pin through their shafts at a point about half way between the tines and the ends of the shafts in such a way that the arrays of tines can be extended apart and drawn together to pick up leaves. The device works like ordinary ice tongs, which were known long before Cox was issued. Cox teaches that a strong metal coupling is needed to hold the two rakes together at the pivot point, and that the coupling will prevent rotation of the rakes about the axes of their shafts and will prevent movement of the coupling along the shafts. It does show that rakes can be joined in a useful manner similar to that used by Davis to join shovels, except that Cox joins the rake shafts at their midpoint and Davis joins he shovel shafts near the shovel heads.

In the rejection of claims 4 and 5 (claiming rakes as the grasping elements) and claim 10 (claiming two loops and a chain as the coupling means), the Examiner states that

> "Davis .... fails to show the use of rakes. However, Cox teaches that it is well known to provide rakes in such a grasping configuration and to do so using a diverse hinge means rendering the claimed chain an art recognized equivalent and an obvious matter of choice of design. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the device of

> Davis with the teachings of Cox in order to provide a grasping device having greater operational range .... "

Claim 1, the independent claim that describes the invention, is not rejected under 35 USC § 103(a). The claimed apparatus of claim 1 provides a new way of using "gathering devices," which gathering devices may include known and patented objects, such as rakes, as elements. Claims 4 and 5 are dependent claims for the use of rakes as elements of the apparatus claimed in claim 1. Applicant is not claiming rakes as a novel invention, but as an integral part of such an apparatus. In a similar manner, Cox claims two rakes as integral elements in his apparatus, although rakes were certainly known before then, and the opposed use of rakes and shovels was disclosed or claimed in many inventions cited during the course of prosecution of this patent application. For example, Laughlin, Grass rake tongs, US 5,564,266, October 15, 1996 and attached as Exhibit A, claims:

> "1. Grass rake tongs, comprising: a pair of rakes each having an array of tines joined .... to a lower end of a handle ....; and means disposed through said handles at a point approximately mid-way between a lower end of said tines and an upper end of said handle ...."

In Laughlin '266, two rakes are joined by a pin through their handles as in Cox '484. The rakes are not claimed as rakes, but are claimed as part of a pair of tongs. Cox, Laughlin and the Applicant's apparatus are different inventions that are not obvious from prior art, but some elements of them, such as rakes, can be the same. Therefore, Applicant respectfully

traverses and requests that the rejection of claims 4 and 5 be withdrawn.

Claim 10 is a dependent claim for using a chain as the flexible coupling claimed in claim 1. There is no use of a chain coupling in the cited references, Davis '359 and Cox '484. The claimed chain coupling permits the parts to move in any way and does not have the attributes of a hinge. Hinges, and the couplings of the references, restrict motion of the joined parts in a predetermined way, are not moveable along the shafts and prevent rotation of the shafts along their axes. The referenced inventions require fixed couplings for their performance, so teach away from the use of a chain coupling. For these reasons, a chain and a hinge are not "art recognized equivalents" providing equivalent performance. Furthermore, it is respectfully submitted that one of ordinary skill in the art would not attempt to use a flexible chain coupling where the controlled motion of a hinge is required or consider it obvious to replace the pin coupling of Cox with the inflexible coupling of Davis. Therefore, Applicant respectfully traverses and requests that the rejection of claim 10 be withdrawn.

CONCLUSION

For the above reasons, Applicant respectfully requests that the above remarks be entered and made of record in the present application. An allowance is earnestly requested.

If a telephone interview would be of assistance in advancing prosecution of the subject application, Applicant's undersigned

attorney invites the Examiner to telephone at the number provided below.

No fee is deemed necessary in connection with the filing of this Communication. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 50-1891.

Respectfully submitted,

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I hereby certify that this paper is being deposited this date with the U.S. Postal Service with sufficient postage for first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

Albert Wai-Kit Chan 9/17/04
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